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REMARKS

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I. The claims have been respectfully amended.

Claims 17-25 have been cancelled. Claims 1-3, 5-8, 10-11, 15-16, 26-29, and 31-35 have been amended. No new matter has been added by these amendments.

Regarding the amendments pertaining to sampling the encrypted data to avoid overlap between adjacent data at a receiving end, and the means for such sampling, support in the specification can be found on pages 3-4, 12, and 16. Regarding the amendments pertaining to thresholding, and the means for such thresholding, support in the specification can be found on pages 17-19.

II. The claim rejections under 35 U.S.C. § 112.

The USPTO respectfully rejects claims 26-35 as failing to comply with the written description requirement of 35 U.S.C. § 112, first paragraph. Applicants respectfully assert that the specification describes the claims in a clear way to enable and convey to one skilled in the art that applicants had possession of the claimed invention at the time the application was filed.

Specifically, claim 26 claims the structure:

"means for sampling the encrypted data to avoid overlap between adjacent data at a receiving end"

Applicants respectfully assert that a written description of the claimed structure quoted above can be found on pages 3-4, 12, and 16 of the present specification. Page 12 of the specification particularly points out that the signal described in Equation 4 is sampled at an interval of Δ in the input plane. Furthermore, Equation 10 describes the resulting sampled signal. The last paragraph of page 16 describes how to choose the sampling interval Δ so that the reconstructed data do not overlap one another. This description of the sampling and the resulting sampled signal demonstrates that applicants had possession of the claimed structure quoted above at the time the application was filed.

Claim 26 also claims the following structure:

"means for thresholding the resulting decrypted, reconstructed information to recover data lost due to sampling the encrypted data."

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Applicants respectfully assert that a written description of the claimed structure quoted above can be found on pages 17-19 of the present specification. Pages 17-18 of the specification describe how data can be lost due to encryption or undersampling. Pages 18-19 of the specification describe how this lost data can be recovered using thresholding. Specifically, page 19, second paragraph describes how a threshold value is determined. This description of the thresholding demonstrates that applicants had possession of the claimed structure quoted above at the time the application was filed.

Additionally, independent claims 29 and 31 also contain limitations similar to independent claim 26 regarding sampling and thresholding. Therefore, it is respectfully asserted that the written description noted above is sufficient to demonstrate that applicants had possession of the elements claimed in claims 29 and 31 at the time the application was filed.

Thus, it is respectfully asserted that applicants' specification presents a clear written description that is enabled and demonstrates possession of all the elements of the claimed invention at the time the application was filed. Therefore, it is respectfully asserted that the written description requirement is satisfied, and that the rejection under 35 U.S.C. § 112, first paragraph has been overcome.

III. The claim rejections under 35 U.S.C. § 103.

The USPTO respectfully rejects claims 1-25 as being obvious over Javidi et al. (US 5,903,648), in view of Sun et al. ("All Optical Parallel-to-Serial Conversion by Holographic Spatial-to-Temporal Frequency Encoding") in further view of Marom et al. ("Analysis of Spatial-Temporal Converters for All-Optical Communication Links"). Applicants respectfully assert that a *prima facie* case of obviousness has not been established because the cited references do not teach or disclose all of the claimed elements.

A. The cited references do not teach or disclose thresholding the resulting decrypted, reconstructed information, as claimed in claim 1.

Regarding the limitations of claim 1 that claim in relevant part:

"sampling the encrypted data to avoid overlap between adjacent data at a receiving end;

...

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thresholding the resulting decrypted, reconstructed information to recover data lost due to sampling the encrypted data." (emphasis added)

it is respectfully not seen where the cited references teach or suggest the claimed method.

Specifically, pages 17-19 of the present specification describe the thresholding method claimed in claim 1. Pages 17-18 disclose how portions of the encrypted data can be lost due to sampling. Therefore, it is important to recover this lost data in some way. **Pages 18-19 of the present specification describe thresholding the decrypted, reconstructed information to recover data lost due to sampling of the encrypted data, as claimed in claim 1.**

In contrast, the cited references do not teach or suggest the thresholding of decrypted, reconstructed information to recover data lost due to sampling, as claimed in claim 1. Specifically, the USPTO respectfully notes on page 5 of the Final Office Action that Javidi and Sun do not teach sampling to avoid overlap between adjacent data at the receiving end. Thus, it is respectfully asserted that **Javidi and Sun do not teach thresholding to recover lost data because there is no sampling and therefore no lost data to be recovered.** Therefore, Javidi and Sun do not teach or suggest thresholding the resulting decrypted, reconstructed information to recover data lost due to sampling the encrypted data, as claimed in claim 1.

Furthermore, as the USPTO respectfully notes on page 5 of the Final Office Action, Marom teaches sampling the encrypted data to avoid overlap between adjacent data. However, while Marom notes that sampling can result in data loss (see Marom page 2863, left column, last paragraph), **Marom does not appear to teach or suggest using thresholding on decrypted, reconstructed information to recover such lost data due to sampling of encrypted data,** as claimed in claim 1.

Thus, it is respectfully asserted that the cited references, either alone or in combination with each other, do not teach or suggest the claimed structure quoted above. Therefore, it is respectfully asserted that the obviousness rejection to claim 1 has been overcome.

BEST AVAILABLE COPYIV. The dependent claims.

As noted above, it is respectfully asserted that independent claims 1, 26, 29, and 31 are allowable, and thus dependent claims 2-16, 27-28, 30, and 32-35 are also allowable.

V. Conclusion.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Please telephone the undersigned for any reason. Applicants seek to cooperate with the Examiner and to expedite prosecution.

Respectfully submitted,

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37 C.F.R. 1.4(d)(2), MPEP 502.02